Amendment

In the Abstract

Please replace the abstract with the following:

--A device for receiving optical signals comprising a light-guiding object having an irradiation surface for receiving optical signals adjacent to a propagation path along which light primarily travels within the light-guiding means. The light-guiding object is substantially constructed of a synthetic material capable of causing elastic dispersion of optical signals received through the irradiation surface at angles between about 0 and 90 degrees relative to the irradiation surface. The synthetic material is further capable of undergoing a population inversion by energetic excitation. The system further includes an excitation unit for inducing a population inversion within the synthetic material. An optical signal is coupled into the light-guiding means through the irradiation surface resulting in a radiation component of the optical signal in the direction of the propagation path of the light-guiding object due to elastic dispersion of the optical signal caused by the synthetic material. A detector means optically coupled to the light-guiding object detects the amplified optical signal having an emission wavelength that corresponds to the wavelength of the original optical signal. The amplified optical signal is produced by stimulated emission from the synthetic material caused by the radiation component of the optical signal.--

In the Claims

Please cancel claims 1-8.

Please add the following new claims:

9. A device for receiving optical signals comprising: